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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/813,624	03/31/2004	Yuji Hamada	50024-036	3821

7590 08/22/2006

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EXAMINER

GARRETT, DAWN L

ART UNIT	PAPER NUMBER
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1774

DATE MAILED: 08/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/813,624

Applicant(s)

HAMADA ET AL.

Examiner

Dawn Garrett

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 12-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 12-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7/25/06
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on July 25, 2006 has been entered.

2. The amendment received July 6, 2006 is pending. Claims 1-9 and 12-15 are pending and under consideration. Claims 10, 11, 16, and 17 have been cancelled.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

4. Claims 12-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Mizukami et al. (JP 2001-214159; cited by applicant on IDS dated December 14, 2004). Mizukami et al. discloses luminescent organic compounds and EL display devices using the luminescent compounds. The luminescent organic compounds have an impurity concentration of less than 0.01 ppm (see abstract and entire document, especially paragraph 7). A typical EL compound used for the invention includes quinolinol group containing compound Alq₃ (tris-8-quinolinolato

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aluminum complex) (see paragraph 17). With regard to claims 13 and 15, the devices further comprise carrier transporting material layer (see Figures and especially par. 111).

5. Claims 1-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Higashi et al. (US 7,045,950). Higashi et al. discloses organic electroluminescent devices with an organic compound layer having an impurity concentration of lower than 1000 ppm (see abstract). This impurity concentration encompasses the impurity range required by the present claims. The organic compounds may include phenylamino-containing compounds (see bottom of col. 7-8, bottom of col. 13-14, top of col. 15-16, col. 17-22). The electroluminescent devices may further comprise carrier-transporting layers per claims 3, 5, 7 and 9 (see col. 26, lines 51).

6. Claims 1-9 and 12-15 are again rejected under 35 U.S.C. 102(e) as being anticipated by Toguchi et al. (US 6,565,993). Toguchi et al. discloses electroluminescent devices comprising organic layers including an electron-transporting layer (carrier transporting material), emission layer, and a hole-transporting layer (carrier transporting material) (see abstract and col. 3, lines 48-60). Materials included in the organic functional layers of the device are tris(8-quinolinol)aluminum complex (Alq3), 1,4-bis(N-p-tolyl-N-4-(4-methylstyryl)phenylamino)naphthalene (see par. 4, lines 14-22), and 4,4'-bis (m-tolylphenylamino)biphenyl (TPD) (see col. 5, lines 42-43) per the claim requirements of a compound with a quinolinol group and compound having a phenylamino group. No impurities are disclosed by Toguchi et al. with regard to the level of no impurities recited in the present claims.

Response to Arguments

7. Applicant's arguments filed July 6, 2006 have been fully considered but they are not persuasive. The impurity concentrations set forth in the present claims encompass a zero concentration of impurities with regard to the Toguchi et al. rejection. With regard to the new rejections over Higashi et al. and Mizukami et al., the references clearly disclose impurity levels within those claimed by applicant.

The following relevant sections of the MPEP are again noted:

MPEP 2173.05, which discusses "up to" includes zero.

MPEP 2144.04, which discusses recitation of materials without impurities.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dawn Garrett whose telephone number is (571)272-1523. The examiner can normally be reached Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached at (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dawn Garrett
DAWN GARRETT
PRIMARY EXAMINER
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